SOLSTICE
SOLAR POWER

American Technology



SUN in the BOX
S-FLARE

Total Energy Capture

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Company Profile

Solstice Solar Inc. emerged with the mission to revolutionize the solar industry leveraging technological expertise and a commitment to sustainability. Solstice Solar specializes in providing high-efficiency solar panels, batteries and All-in-one systems to distributors and installers worldwide, focusing on cost-effective and innovative solutions. Our journey reflects a blend of innovation, quality, and a drive towards making sustainable energy accessible, positioning us as a leading force in solar manufacturing.

Solstice Solar continues to expand its global footprint, bringing sustainable energy solutions to diverse markets around the world.



Our Team

Mission: To empower the world with clean energy and smart storage solutions without compromise.

Vision: To become the leading global provider of solar and battery technologies.

Value: Innovation, excellence, sustainability, and mutual growth

Slogan: Reliable power, limitless future.

Main Business

Manufacture of Solar Panels, BESS and EV power station, including residential & commercial energy storage battery, photovoltaic energy storage system.



SunBox Energy Storage Lineup

SOLSTICE SOLAR POWER

From homes to heavy industry — one family of storage solutions





SunBox X
Residential hybrid ESS · 12 kW · 20–30 kWh
p. 6



SunBox C&I
Commercial storage · 100 kW · 200 kWh
p. 9



SunBox EV
100 kW · 218 kWh + 240 kW DC truck charging
p. 11



SunBox LC
Liquid-cooled outdoor energy storage cabinet
p. 16



SunBox Mobile
Deployable solar power container
p. 17

SunBox X

12 kW Split-Phase Hybrid ESS

All-in-one 20–30 kWh residential energy storage

- Expandable up to 30 kWh per cabinet
- Up to 6 × 5 kWh battery modules integrated in a single cabinet
- 120/240 V split-phase (US standard)
- AC coupling to retrofit an existing solar installation
- AC parallel connection of up to 10 cabinets / 120 kW
- Solar + battery + grid backup for the whole home
- USA **Designed for American homes**



5 levels
Maximum safety protection

≥ 8,500
Cycles

10 years
Warranty

70 %
Capacity at end of life (EOL)

SunBox X

SOLSTICE SOLAR POWER

Features & specifications

Fast Installation

Fully integrated, pre-configured system that cuts on-site installation time. It includes the inverter(s), battery trays, cabinet, BMS, microgrid controller, HVAC, fire suppression, islanding switch and an outdoor-rated enclosure.

Safe Technology & Multi-Level Protection

Tier-1 LiFePO4 chemistry for maximum safety, thermal stability and reliability. An integrated multi-level battery management system (BMS) monitors, optimizes and balances the system.

Scalable, Simple & Flexible

Modular design makes it easy to add capacity, and the cabinet adapts to a wide range of environments. A single system can be expanded up to 64.28 kWh.

High Performance

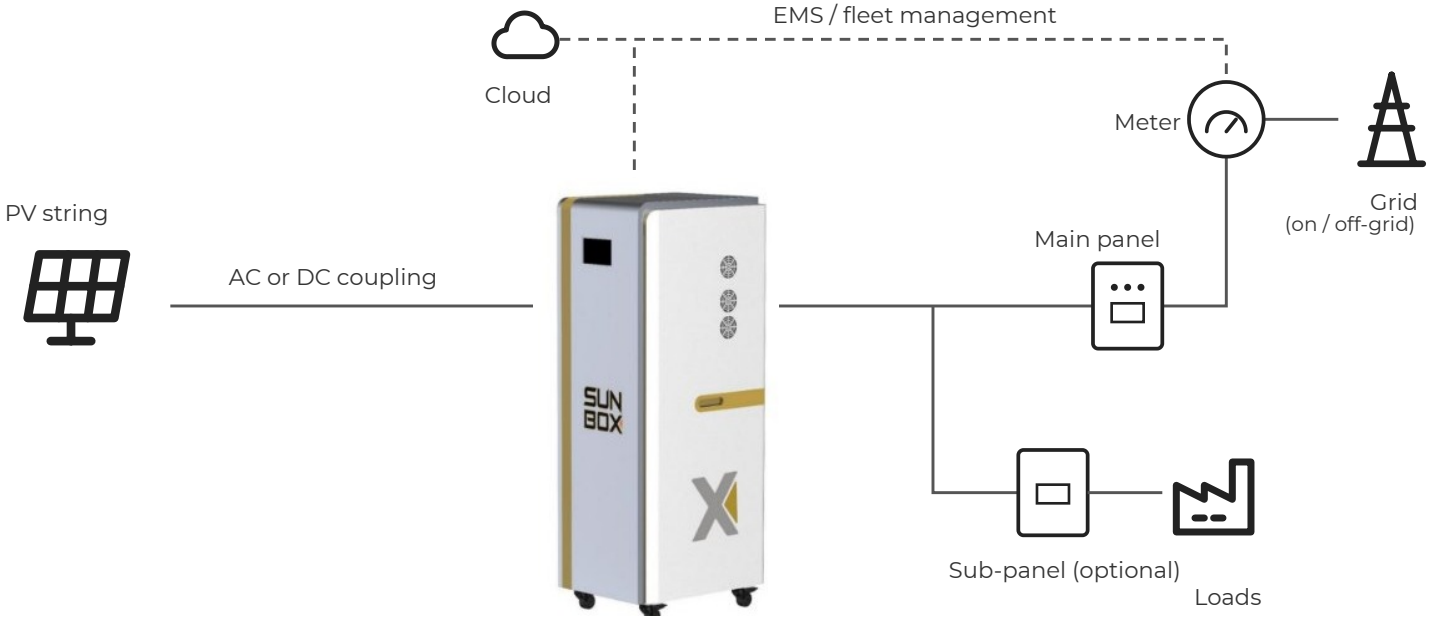
Dedicated generator port. AC coupling and time-of-use scheduling. Supports 100 % unbalanced loads. 208 V AC three-phase and parallel operation available. 200 A pass-through current.

Specification	SunBox X · 12 kW / 20 kWh
Inverter power	12 kW
Battery capacity	20 kWh standard · up to 30 kWh per cabinet
Battery modules	Up to 6 × 5 kWh per cabinet
Max. system capacity	Up to 64.28 kWh (single system)
Grid connection	120/240 V split-phase (US) · 208 V three-phase available
Parallel operation	AC parallel up to 10 cabinets / 120 kW
Coupling	AC and DC coupling (retrofit-ready)
Pass-through current	200 A
Unbalanced load support	100 %
Generator	Dedicated generator port
Energy management	Time-of-use (peak / off-peak) scheduling
Battery chemistry	LiFePO4 (Tier 1)
Cycle life	≥ 8,500 cycles · 70 % at end of life
Safety	5-level protection · integrated fire suppression
Warranty	10 years

Ideal for homes and small businesses

RESIDENCES | RETAIL STORES | OFFICES | RESTAURANTS | SMALL BUSINESSES

Typical Applications



For small commercial and industrial sites

Farm



Shopping center or retail store



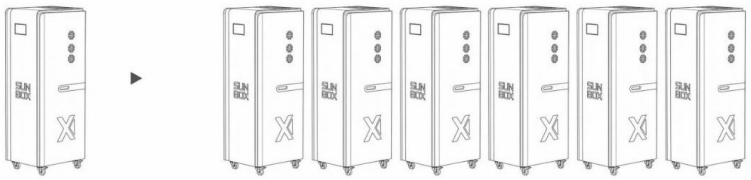
Factory



Commercial building



Product expansion



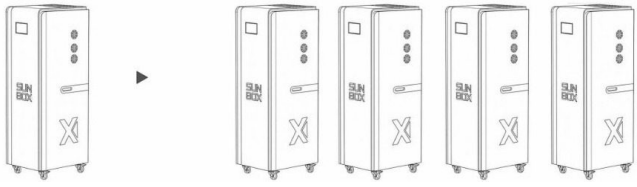
6 × 18KUS + 18 kW inverter

Up to 6 units connected in parallel on the DC side
Up to 18 kW / 384 kWh



(6 × 18KUS + 18 kW inverter) × 10

Up to 10 groups in parallel on the AC side
Up to 180 kW / 3,840 kWh



(1 × 18KUS + 18 kW inverter) × 10

Up to 10 units in parallel on the AC side
Up to 180 kW / 640 kWh

SunBox C&I

Solar energy solutions for homes, businesses & industries

Clean energy. A brighter future.

100 kW
INVERTER POWER

200 kWh
BATTERY CAPACITY

- REDUCES ELECTRICITY COSTS
- RELIABLE AND CONTINUOUS POWER
- SUSTAINABLE SOLUTIONS FOR YOUR BUSINESS
- IDEAL FOR OFFICES, STORES, INDUSTRIES & MORE



Integrated inverter + battery cabinet

A 100 kW power conversion system mounted on a 200 kWh lithium battery cabinet, delivered as one coordinated system. It cuts peak demand charges, stores solar energy for evening use and keeps critical loads running during outages — for offices, retail stores, factories and other commercial sites.

SOLAR ENERGY | BATTERY STORAGE | ENERGY INDEPENDENCE | BE YOUR OWN ENERGY

More Backup. Less Space.

SunBox C&I · 100 kW / 200 kWh

200 kWh

of backup energy + 100 kW of power

in one compact outdoor cabinet — more stored energy per square meter of floor space.

Inverter on top, battery below

The 100 kW inverter mounts directly on the battery cabinet — one footprint for the whole system.

200 kWh in a single cabinet

Eight high-voltage LFP battery packs stacked in one enclosure.

Built-in climate control

Integrated HVAC unit keeps the batteries at their ideal temperature.

Safety first

Emergency stop (E-stop), lockable doors and multi-level BMS protection.

Fast installation

Factory pre-wired and tested — set it down, connect and commission.



Closed: HVAC + E-stop



Open: 8 battery packs



High-density battery rack with active balancing

100 kW / 218 kWh + 240 kW DC

SOLSTICE SOLAR POWER

SunBox EV · Solar Storage EV Charging System

Powering farms. Charging the future.



SYSTEM HIGHLIGHTS

PV input	**150 kW+**
Hybrid inverter	**100 kW**
Battery capacity	**218 kWh (LFP)**
EV charger output	**240 kW DC fast charging**
Output voltage	**200 – 1000 V DC**
Max. charging current	**250 A**
Charging standard	**CCS2 / CHAdeMO (optional)**
Protection level	**IP54 · outdoor rated**
Application	**Farms · fleets · commercial**

100 kW
HYBRID INVERTER
Grid-tied / off-grid

218 kWh
BATTERY CAPACITY
High-voltage LFP battery

240 kW
DC FAST CHARGING
CCS2 DC connector

PV ARRAY → HYBRID INVERTER → 218 KWH BATTERY → 240 KW DC CHARGER → EV TRUCK

Key Benefits

SunBox EV · 100 kW / 218 kWh + 240 kW DC

01 · Lower Energy Costs

- Store excess solar energy and charge your fleet with clean, affordable power.
- Reduce diesel and electricity bills year-round.

02 · Reliable & Resilient

- 218 kWh high-voltage battery and 100 kW hybrid inverter keep power stable even during outages.
- Keep your farm and operations running.

03 · Ultra-Fast Charging

- 240 kW DC fast charging gets electric trucks back on the road quickly.
- Maximize uptime and productivity.

04 · Future-Ready Investment

- Scalable, smart and built for the future of farming and fleets.
- Supports your sustainability goals and increases property value.

05 · Practical & Compatible

- 100 % unbalanced output.
- AC coupling to retrofit an existing solar system.
- Dual independent battery circuit.

06 · Versatile & High-Performance

- Time-of-use function with six time periods for battery charging / discharging.
- Diesel generator-ready; VSG application.

07 · Reliability & Scalability

- Up to 10 units in parallel for on-grid and off-grid operation.
- Seamless on-grid / off-grid switching in less than 10 ms.

08 · Intelligent Control

- Peak-valley management and anti-backflow.
- Overload protection, load tracking, demand control, backup power and phase separation.

09 · Built for Harsh Sites

- Operating temperature −20 °C to 55 °C.
- Operates up to 3,000 m altitude.
- 1.1× overload capacity; balancing extends battery life.

10 · Safer by Design

- LFP (lithium iron phosphate) batteries.
- Aerosol fire suppression supported.

Technical Specifications

SOLSTICE SOLAR POWER

SunBox EV · Solar Storage EV Charging System

Model	100 kW / 215 kWh + 120 kW DC	100 kW / 218 kWh + 240 kW DC
Input DC (PV side)		
Recommended max. PV array size	200 kW	
Max. usable PV input power	200 kW	
Max. input voltage	1000 V	
Rated voltage	600 V	
Start-up voltage	180 V	
MPPT voltage range	150 – 950 V	
Max. input current	10 × 42 A	
Max. current per DC input	42 A	
Max. short-circuit current	10 × 45 A	
MPPT number / max. input strings	10 / 20	
Max. inverter backfeed current to the array	0 A	
Lithium iron phosphate battery (LFP)		
Battery rated capacity	215 kWh	218 kWh
Battery voltage range	614 V	
Input voltage	480 – 701 V	
Cell capacity	350 Ah	356 Ah
Battery series-parallel configuration	192S (8 × 24S1P)	
Max. charge and discharge current	250 A	
DC fast charger		
Rated output power	120 kW	240 kW
Charger connector	CCS1 / CCS2 / GB/T / CHAdeMO / NACS, dual gun	
Input voltage	400 V ± 15 %	
Frequency	50 / 60 Hz	
RCD	Type A+B, AC 30 mA + DC 6 mA	
Max. charging current	250 A	300 A
Output voltage	200 – 1000 V	
RFID	Mifare ISO/IEC 14443A (optional)	
Number of charging guns	Dual guns	
Starting method	VIN/MAC address Plug&Play / APP / RFID / OCPP	
Input AC (grid side)		
Max. input power	173.2 kW	
Input voltage range	320 – 460 V	
Max. input current	250 A	
Output AC (back-up)		
Rated output power	100 kW	
Max. apparent output power	1.6 × rated power, 10 s; 2 × rated power, 200 ms	
Back-up switch time [1]	< 10 ms	
Rated output voltage	3/N/PE, 230 V / 400 V	
Rated frequency	50 Hz	
Rated output current	144.3 A	
Max. AC pass-through current	144.3 A	
THDv (linear load)	< 3 %	
Inrush current	500 A @ 10 µs	
Max. output fault current	320 A	
Max. output overcurrent protection	144.3 A	

Technical Specifications

SunBox EV · Solar Storage EV Charging System (continued)

Model	100 kW / 215 kWh + 120 kW DC	100 kW / 218 kWh + 240 kW DC
Input AC (generator side)		
Max. input power	100 kW	
Rated input current	144.3 A	
Rated input voltage	3/N/PE, 230 V / 400 V	
Rated input frequency	50 Hz	
Efficiency		
Max. efficiency	97.6 %	
EU efficiency	97.2 %	
Battery charged by PV / AC, max. efficiency	98.2 % / 97.0 %	
Battery discharge efficiency	97.0 %	
Output AC (grid side)		
Rated output power	100 kW	
Max. apparent output power	100 kVA	
Rated grid voltage	3/N/PE, 230 V / 400 V	
Rated grid frequency	50 Hz	
Rated grid output current	144.3 A	
Power factor	> 0.99 (0.8 leading – 0.8 lagging)	
THDi	< 3 %	
General data		
Max. power per phase (grid & back-up)	33 % of rated power	
Dimensions (W × H × D)	1612 × 2490 × 1308 mm	1820 × 2490 × 1308 mm
Weight	170 kg	170 kg
Inverter topology	Transformerless	
Self-consumption	< 45 W	
Operating temperature range	−25 to +60 °C	
Relative humidity	0 – 100 %	
Ingress protection	IP66	
Cooling concept	Intelligent redundant fan cooling	
Max. operating altitude	3000 m	
Grid connection standard [2]	G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1&2 / EN 50549-10, VDE 0126 / UTE C 15 / VFR:2019, NTS 631 / UNE 217001, CEI 0-21	
Safety / EMC standard	IEC 62109-1/-2, IEC 61000-6-2/-4, EN 55011	
Features		
PV connection	MC4 connector	
Battery connection	Terminal connector	
AC connection	Terminal block	
Display	7.0" LCD display & Bluetooth + APP	
Communication interface	Standard: Wi-Fi + LAN + Bluetooth, CAN-BMS × 2, CAN-Parallel × 2, LAN, RS485-Meter, RS485, DRM, DI × 5, DO × 4; optional: 4G	

[1] From on-grid to off-grid mode: single inverter system < 10 ms; parallel system of up to 6 inverters < 20 ms. For more than 6 inverters in parallel, please contact the Solstice technical team.

[2] Planned certification standards. Please confirm the certification status for your market with the Solstice team.

Battery System

250 A active-balancing high-voltage battery · 8 packs per 215 / 218 kWh cabinet

High-voltage control box (PDU)	
Operating voltage	300 – 1500 Vdc
Nominal charge / discharge current	200 A
Operating temperature	–20 to 65 °C
Ingress protection	IP20
DC input rating	20+5 V / 8.20 A
Dimensions / weight	440 × 570 × 150 mm / 25 kg

Battery pack · 24S, high voltage	
Nominal capacity	350 Ah
Nominal energy	26.88 / 27.34 kWh
Nominal voltage	76.8 Vdc
Max. charge / discharge current	180 A
Ingress protection	IP20
Operating temperature (charge)	0 – 55 °C
Operating temperature (discharge)	–20 – 55 °C
Storage temperature	0 – 35 °C
Dimensions / weight	528 × 1042 × 268 mm (W × D × H) / 147 kg

27.34 kWh
per battery pack

8 packs
per cabinet

2.5 A
active balancing current

UL 94 V-0
flame-retardant materials

Battery management

- **Active balancing:** the BMS active balancing system provides up to 2.5 A of balancing current, transferring energy between adjacent batteries, with periodic and self-test functions.
- **isoSPI communication:** BMS sampling data is sent to the master controller over isoSPI. Up to 16 battery packs can be connected in series on a single isoSPI channel.
- **High-side output:** a single high-side switch can continuously output up to 1 A.
- **Materials:** all materials meet the UL 94 V-0 flame-retardant and thermal-runaway rating.

SunBox LC

Liquid-Cooled Outdoor Energy Storage Cabinet

Powering a more sustainable industry

Liquid thermal management

Coolant circulates through the battery system to keep every cell at a uniform, ideal temperature.

Longer battery life

Lower temperature differences between cells reduce degradation and extend cycle life.

Made for hot climates

Holds full performance in high ambient temperatures where air-cooled systems derate.

Safe by design

LFP chemistry, emergency stop button and status indicators on the front panel.

Outdoor-ready cabinet

Robust enclosure for commercial, industrial and utility sites.



SAFE | **RELIABLE** | **EFFICIENT** | **SMARTER TOGETHER**

Detailed specifications available on request — contact the Solstice team.

SOLSTICE
SOLAR POWER

POWER. REMOTE. OPERATION.

Mobile, deployable power for remote sites and industrial needs.



SunBox Mobile · Solar Power Container

EASY TO DEPLOY AND TRANSPORT
Built for remote locations and rapid setup.

LFP BATTERY AND BMS
Long life, high safety and intelligent protection.

TEMPERATURE CONTROL SYSTEM
Maintains optimal performance in extreme environments.

AUTOMATIC FIRE EXTINGUISHING SYSTEM
Integrated fire suppression for maximum safety.

EXTERNAL CONNECTION
Flexible interfaces for seamless integration.

EMS
Smart energy management for efficiency and reliability.



A foldable photovoltaic array and a containerized battery system that ship as standard freight, unfold on site and deliver clean power where there is no grid — mines, oil & gas fields, construction sites, farms and emergency response.

Deployment

SunBox Mobile · from transport to full power in a short time



Foldable PV wings open on site around the central container



Module frames in production



Array deployed beside the container



Field installation

RUGGED. MOBILE. RELIABLE.

POWER ANYWHERE YOU OPERATE.

MINING

OIL & GAS

CONSTRUCTION

AGRICULTURE

REMOTE & OFF-GRID CAMPS

DIESEL REPLACEMENT

Regional Specifications

UNITED STATES · EUROPE · AFRICA

SunBox systems are configured for the voltage, frequency, connectors and grid codes of each market. Use this page to choose the right configuration; for project-specific data contact the Solstice team.

	United States	Europe	Africa
Electrical grid at a glance			
Typical grid	120/240 V split-phase 208 V three-phase · 60 Hz	230/400 V three-phase · 50 Hz	220/380 V or 230/400 V three-phase · 50 Hz
SunBox X · residential 12 kW / 20–30 kWh			
Configuration	120/240 V split-phase (US standard) 208 V three-phase available	Use the All-in-One Hybrid ESS three-phase (5–20 kW, 230/400 V)	Use the All-in-One Hybrid ESS three-phase (5–20 kW, 220/380 or 230/400 V)
SunBox EV · 100 kW / 215–218 kWh + 120–240 kW DC			
AC grid / back-up	US configuration on request	3/N/PE 230/400 V · 50 Hz	3/N/PE 230/400 V · 50 Hz
Charging connector	CCS1 / NACS	CCS2 / CHAdeMO	CCS2 / CHAdeMO / GB/T (per country)
Grid connection standard	Contact Solstice	G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1&2 / -10, VDE 0126 / UTE C 15 / VFR:2019, NTS 631 / UNE 217001, CEI 0-21 (planned)	Per country — confirm with Solstice
Safety / EMC	Contact Solstice	IEC 62109-1/-2, IEC 61000-6-2/-4, EN 55011	IEC 62109-1/-2, IEC 61000-6-2/-4, EN 55011
Battery and environment	LFP 192S (8 × 24S1P), 614 V · IP66 · −25 to +60 °C · up to 3,000 m · UL 94 V-0 materials		
SunBox C&I · SunBox LC · SunBox Mobile			
Configuration	Built for the local voltage and frequency of each project (60 Hz in the US, 50 Hz in Europe and Africa). Regional data sheets on request.		

[1] SunBox EV grid connection standards are planned certifications; confirm the status for your market with the Solstice team.

[2] The SunBox EV DC charger accepts 50/60 Hz input and supports CCS1, CCS2, GB/T, CHAdeMO and NACS connectors; the connector is fitted for the destination market.

Contact Us

Email us today for a **free quote** — residential, commercial, industrial and off-grid projects.

WEBSITE

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Distributors & installers welcome

Join the Solstice Solar distributor network and bring SunBox energy storage to your market. Technical training, project support and marketing materials included.

